

information memory module 4. If a department's budget is not expected to be changed, the system management module 8 can set the department's budget to have read-only status. Thereupon, users cannot change the department's budget unless they have specific authority to do so. Similarly, the system management module 8 can set a department's forms filled in as a result of a transaction to have read-only status. The forms are thereby similarly protected from being changed.

[0023] Referring to FIG. 3, the department master file 41 stores basic information of a department and a history of expenses of the department. The department master file 41 comprises a department code 41a, a department name 41b, an expense code 41c, a higher authority of the department 41d, and an expense budget 41e.

[0024] Referring to FIG. 4, the supplier master file 42 stores basic information on suppliers and supplier management. The supplier master file 42 comprises a supplier code 42a, a supplier name 42b, a supplier representative 42c, a contacting means 42d, and a payment mode 42e.

[0025] Referring to FIG. 5, the article master file 43 stores information comprising an article code 43a, an article name 43b, an article specification 43c, a unit price 43d and a supplier code 42a.

[0026] FIG. 6 is a flowchart of managing a budget using the expense management system of the preferred embodiment of the present invention. On one day each month, such as the first day of the month, a user 50 inputs that month's budget for a department (step s601). The budget is then stored in the budget and expense database 52. When a user 50 wants to purchase an article, he firstly inputs purchase requisition information in accordance with the transaction process program 54 stored in the user's terminal unit. The purchase requisition information comprises a department code, a name of the article to be purchased, and a quantity of the article required. The host 3 (see FIG. 1) retrieves a history

of expenses of the department, calculates a current budget balance of the department using the budget management program 51, and compares the balance with a total cost of the purchase requisition. If the total cost is greater than the balance, the host 3 sends an alarm to the user. The alarm may take any one or more of a variety of forms, such as a sonic alarm or a visual alarm. A visual alarm may, for example, be a flashing red lamp. Upon receipt of the alarm, the user 50 must take action to reprocess the purchase requisition. If the total cost does not exceed the balance, the expense management system sends a purchase order to an appointed supplier. Transaction information generated from the purchasing process is stored in the transaction database 53, and expense information generated from the purchasing process is stored in the budget and expense database 52 automatically. The expense management system updates the budget balance and history of expenses information of the department. The statistical reports module 7 processes the information generated from the purchasing process (step s602), and outputs a report about the purchase (step s603).

[0027] FIG. 7 is a flowchart showing operation of the expense management system in accordance with the preferred embodiment of the present invention. When a user wants to find out whether information on a needed article already exists in the basic information memory module 4, he can input on his terminal unit a name and specification of the article and related supplier information. Such information is transmitted to the host 3 via the electronic communications network 2 as shown in step s701 (see also FIG. 1). The expense management system compares the information input by the user with information already stored in the host 3, to determine whether there already is information related to the article to be purchased in the basic information memory module 4. The determination is fed back to the user (step s702). If the determination is that there is no such information already in the basic information memory module 4, the result is

negative. If the determination is that there already is such information in the basic information memory module 4, the result is positive. In the case of a negative determination, the user needs to input information about the article in the transaction process module 5. Information to be input includes name, specification, and unit price. The information is input in a specific format (step s703). Then the host 3 determines if the input information is both correct and sufficient (step s704). If not, the expense management system informs the user of “invalid information” (step s705). The user must then re-input the needed information; that is, repeat step s703. Once the user has input correct and sufficient information, the expense management system updates information in the basic information memory module 4 automatically (step s706), and information on the article is stored in the basic information memory module 4.

[0028] Once the information in the basic information memory module 4 has been updated, or when the result of the determination in step s702 is positive, the user can then post a purchase requisition on his terminal unit (step s707). The purchase requisition comprises name of article, quantity of article, ordering date, department code, and expense code. The host 3 calculates a total cost of the articles listed in the purchase requisition, and a budget balance of the department according to a history of expenses of the department. The host 3 then compares the total cost with the budget balance (step s708). If the total cost is greater than the budget balance, the expense management system gives the user an exceed budget warning (step s709). The user must then reprocess the purchase requisition, such as by abandoning it or modifying it (step s710). If the total cost does not exceed the budget balance, whether upon first posting of the purchase requisition or upon reprocessing thereof, the purchase requisition will be sent to a higher authority department (see FIG. 3) for approval. Assuming that the purchase requisition is authorized by the higher authority department, the host 3